CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Big Sheep Creek State Gravel Pit
Proposed Implementation Date:	Spring 2017
Proponent:	A.M. Welles, Inc. PO Box 2808 Norris, MT 59745
Location:	Sections 16 – T13S-R9W (Common Schools)
County:	Beaverhead

I. TYPE AND PURPOSE OF ACTION

The proponent has applied to the Department of Natural Resources and Conservation (DNRC) for a gravel permit from the section of State Trust Land in T13S-R9W-Section 16. This assessment evaluates approximately 70 acres of State of Montana land that would be permitted and mined. At this time, the applicant proposes to mine only 20.8 acres. Please see the attached map. The proponent would remove approximately 60,000 cubic yards for the Big Sheep Creek road construction project during the summer of 2017. After the road project is complete, the site will be reclaimed by A.M. Welles. However, other parties may be interested in mining this site in the future.

If issued, the DNRC gravel permit would be valid for 2 years, upon which time the proponent would be able to apply for 2-year renewals. The proponent would be required to follow the stipulations when conducting operations and reclamation outlined in the DNRC gravel permit. Specifics of these stipulations will be noted further in this document. A bond will be held by the DEQ Opencut Mining Program to help ensure proper reclamation is completed.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

A.M. Welles, Inc.
State of Montana Department of Environmental Quality (DEQ): Opencut Mining Plan of Operation and Application
State of Montana DNRC: Surface and Mineral Owner. Dillon Unit Manager - Tim Egan, Dillon Unit Land Use Specialist - Chuck Maddox, Engineer - Trevor Taylor, Mineral Resource Specialist - Heidi Crum, and DNRC Archeologist - Patrick Rennie.
DNRC Surface lessee: Steve Buckner
Beaverhead County Weed District: Weed Management Plan
Beaverhead County Commissioners
Fish Wildlife & Parks Wildlife Biologist, Craig Fager
Smith's Elk Meadows Ranch
Lee Martinell Co
Buhler Land & Cattle Company

No comments from the public were received during the scoping process for this project.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

State of Montana DEQ – Opencut Mining Plan of Operation and Application

3. ALTERNATIVES CONSIDERED:

No Action Alternative: The proposed gravel permit would not be granted. Current non-motorized recreational use and grazing leasing would continue.

Action Alternative: The gravel permit would be granted to A.M. Welles, Inc. to mine and remove gravel from trust land.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:
Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The mining permit boundary in Section 16 is located on an older alluvium fan deposit which is documented to have gravel. The site is a large relatively flat field that has been previously cultivated. Access to the site is from Big Sheep Creek Road onto the northeastern boundary of the permit area.

The soil type on this site is Bronec gravelly loam, which is a well-drained soil type containing gravel throughout the soil profile. This soil has a slight erosion hazard potential and high restoration potential. Bronec gravelly loam soils have a good traffic-ability rating, even in wet conditions with heavy equipment used for mining.

The proponent found approximately 9 inches of topsoil from test pits dug on the site. DNRC gravel permit stipulations would require topsoil and subsoil to be stripped and stockpiled for use in reclamation. The DNRC would require the pit side slopes to be reclaimed to a 4:1 maximum grade with erosion control techniques. DEQ Opencut Mine permit requires the proponent to stockpile the top soil and the sub soil (overburden) separately for reclamation.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:
Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

There are no wells located in Section 16 of this project and no wells located within 1,000 feet of the permit boundary. Wells in the surrounding sections at similar elevations are approximately 80-100 feet

deep with static water levels ranging from 10-50 feet deep. The proponent estimates the high water table to be approximately 15 feet deep and will therefore mine to a maximum of 10 feet deep.

The project is located approximately 1 mile north of Little Sheep Creek and 0.8 miles south of Big Sheep Creek. The proponent would implement erosion control measures on the site to prevent effects to surface water quality.

This project would create a depression on a site that is relatively flat. A water collection area less than ½ acres in size will be located in the southeast corner of the permit boundary.

The proponent would fuel off-site and use a mobile fuel truck. All fuel, oil and waste would be kept out of the pit area.

6. AIR QUALITY:
What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

An increase in airborne pollutants and particulates would occur from machinery during proposed gravel activities. Impacts to air quality are expected during active mining. The proponent plans to use this pit continuously for construction projects. A crusher, pug mill, screen, and grizzly would be moved on and off-site as needed. Excavating and hauling equipment including a dozer, dump truck, excavator, loader, scraper, back hoe and skidsteer would be on-site during the 2017 road construction project. Dust from topsoil and subsoil stockpiles would be minimal once stabilized with vegetation. Additionally, the proponent would control dust within the permit boundary by spraying water.

7. VEGETATION COVER, QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

The proposed mining boundary in Section 16 is located on nearly flat land of the valley floor. This location is classified as Montane Sagebrush Steppe and Rocky Mountain Lower Montane, Foothill and Valley Grassland on the Montana Natural Heritage website. The site has been cultivated in the past and planted to Russian wildrye. Other species on the site include crested wheatgrass and threadleaf sedge. No rare or species of concern plants were identified by a Montana Natural Heritage data base search of the area.

A gravel mining operation would remove the vegetative community of the area being mined. The proponent would be required to stockpile all top soil and subsoil for future reclamation. Stipulations also require that weeds are sprayed on reclaimed areas after the grass is seeded to help the vegetation get established.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

A variety of big game, small mammals, raptors, upland game birds and songbirds use this area and activities from the proposed project could disrupt wildlife movement and patterns.

Grassland habitat would be removed with the proposed activities. Big game winter range attributes would be altered; changes in thermal cover and changes in available forage for wintering big game would be anticipated. Similar habitat is available in the area. The flat area this project would be located on is within hundreds of acres of similar, undeveloped habitat. Wildlife would have many alternative travel routes, cover and foraging sites.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

A search was conducted using the Montana Natural Heritage Program (MNHP) database to identify point observations of species of concern in the section of the proposed activity.

Point observations documented Brewer's Sparrows, Long-billed Curlews, a Golden Eagle and Sage Thasher's located along Big Sheep Creek Road within Section 16. Long-billed Curlews were observed on the state land north of the Big Sheep Creek County road when the site was examined in late April 2017.

Other species of concern were spot located in adjacent sections which include: Great Blue Herron (2004), Brewer's Sparrow (2007), Pygmy Rabbit (1992), Green-tailed Towhee (2007), Loggerhead Shrike (2011), Long-billed Curlew (2007), Westslope Cutthoat Trout (1992), and a Golden Eagle pair (2011).

General Sage Grouse habitat is located in adjacent sections to the south and west of the proposed pit.

The current proposed gravel pit would be 20.8 acres in size, however future development of this pit could be up to 70 acres. The action alternative could cause short term habitat impacts to the following bird species, Brewer's Sparrows, Long Billed Curlew's, Sage Thrasher's, and Green–tailed Towhee during the extraction phase of the project due to loss of vegetation and cover. Disturbed areas would be reclaimed and reseeded to Russian wildrye which is the dominant grass species present on the site at this time.

No long term or cumulative impacts to unique, endangered, fragile or limited environmental resources are anticipated from either of the proposed alternatives.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

A Class III cultural and paleontological resources inventory was conducted of the area of potential effect on state land. Despite a detailed examination, no cultural or fossil resources were identified and no additional archaeological or paleontological investigative work is recommended. The proposed project will have No Effect to Antiquities as defined under the Montana State Antiquities Act. A formal report of findings has been prepared and is on file with the DNRC and the Montana State Historic Preservation Officer.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

The proposed gravel pit site is ½ mile west of I-15 and 1.5 miles south of Dell, MT. Aesthetics may be impacted as the pit would be visible from the traffic that utilizes the Big Sheep Creek county road, the I-15 Westside-Frontage Road, and I-15. The proponent would be required by stipulations in the DNRC gravel permit to leave an undisturbed berm on the east boundary of the permit area to minimize visibility from traffic along the Westside-Frontage Road and I-15. At the end of the life of the pit, the proponent would spread the overburden and topsoil berms back over the disturbed area.

Gravel pit excavation would occur at any time of the day or night throughout the year.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

The proposed project would have an impact on the land, approximately 20.8 acres in Section 16. The proponent would reclaim behind them as mining proceeds. Reclamation would include contouring, reseeding and weed control to help restore the vegetation on the site.

The proponent would use an insignificant amount of water for gravel excavation as there would be no dewatering on-site, and would affect the air quality due to airborne dust particles resulting from mining activities and vehicles traveling to and from the gravel pit. The proponent would be required to control dust on all access routes to help minimize degradation to air quality.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

No other environmental documents were found that pertain to Section 16 in T13S-R9W.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

No human and health safety risks were identified as a result of the proposed project other than the typical occupational hazards that coincide with mining operations. The proponent would be held liable for all risks to human health and safety.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

The proposed project is not expected to alter current or future industrial, commercial, and agricultural activities and production.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

The proposed project would not create, move, or eliminate jobs.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

Neither of the proposed alternatives will affect the local and state tax base or revenues.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

Neither of the proposed alternatives will affect demand for government services.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

Neither of the proposed alternatives will affect locally adopted environmental plans or goals. Beaverhead County does not have any current planning and zoning plans in place for this area.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

Neither of the proposed alternatives will affect access to and quality of recreational activities.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

Neither of the proposed alternatives will affect density and distribution of population and housing.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

Neither of the proposed alternatives will affect social structures and mores.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

Neither of the proposed alternatives will affect cultural uniqueness and diversity of the Dell area.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The existing grazing lease on this tract provides approximately $300.00 in annual revenue from Section 16 that goes to Common Schools. The proponent has provided $25 for a gravel permit and would pay $1.50 per cubic yard in royalties for this DNRC gravel permit. The proponent proposes to mine approximately 60,000 cubic yards this year, generating approximately $90,000.00 to Common Schools.

EA Checklist Prepared By:	**Name:** Heidi Crum	**Date:** 6/15/17
	Title: Mineral Resource Specialist	

V. FINDING

25. ALTERNATIVE SELECTED:

After reviewing the Environmental Assessment, I have selected the Action Alternative, to issue a Gravel Permit. I believe this alternative can be implemented in a manner that is consistent with the long-term sustainable natural resource management of the area and generate revenue for the common school trust.

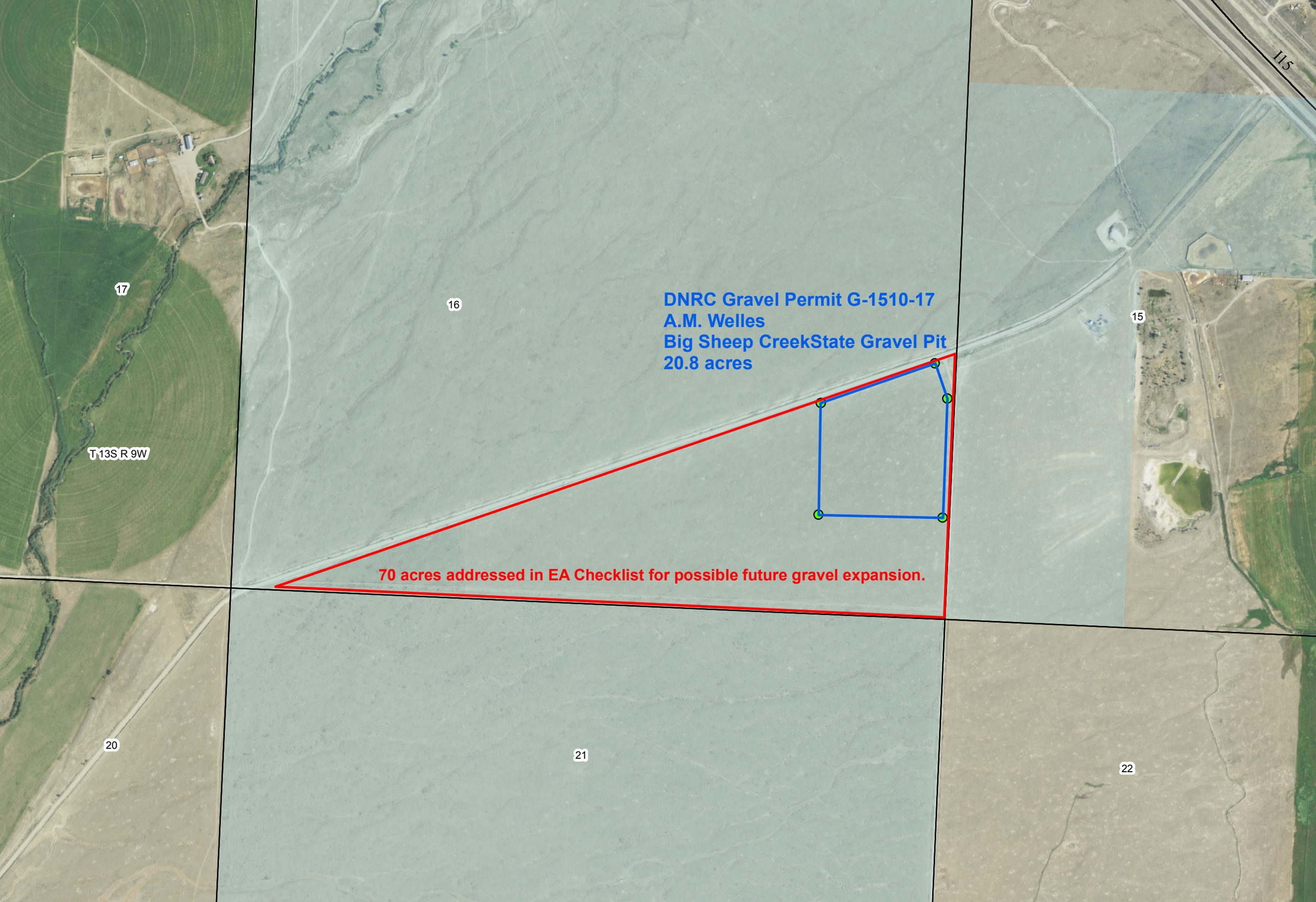
26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I conclude all identified potential impacts will be mitigated by utilizing the stipulations listed below and no significant impacts will occur as a result of implementing the selected alternative.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Approved By:	**Name:** Monte Mason	
	Title: MMB Bureau Chief	
Signature: Monte D Mason		**Date:** 6/16/2017


DNRC Gravel Permit G-1510-17
A.M. Welles
Big Sheep CreekState Gravel Pit
20.8 acres
70 acres addressed in EA Checklist for possible future gravel expansion.
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